

WE CLAIM:

- Sub (a) 1. A computer-implemented method for accessing data, comprising:
- receiving a first request to access data associated with a PCI device, the first request being received at a system for maintaining a namespace containing a plurality of software objects describing hardware devices associated with a computing system;
  - identifying the first request to access the data as being associated with a defined operation region associated with the PCI device; and
  - passing the first request to a provider registered to handle access to the PCI device, the process provider being programmed to resolve and maintain addressing information for the PCI device.
2. The computer-readable medium of claim 1, further comprising:
- receiving data returned from the provider; and
  - passing the returned data to the requesting component.
3. The computer-readable medium of claim 2, wherein the data returned from the provider comprises information associated with the PCI device.
4. The computer-readable medium of claim 1, wherein the defined operation region comprises a PCI BAR Target operation region of the configuration management system.

5. The computer-readable medium of claim 1, wherein the first request to access data associated with the PCI device comprises a command generated by firmware associated with the computing system.

6. The computer-readable medium of claim 5, wherein the command generated by the firmware comprises a control method request to access the data, the control method being one of the software objects within the namespace.

7. A computer-readable medium having computer-executable components, comprising:

a definition block including a PCI object that defines an operation region for accessing a PCI device associated with the PCI object;

a first module configured to populate an information store in a configuration management system with information from the definition block including the PCI object;

a second module configured to register with the configuration management system to handle an instruction directed to the operation region, the second driver being further configured to resolve instructions received from the first module into an effective address location for the PCI device.

8. The computer-readable medium of claim 7, wherein the first module is further configured to pass instructions directed at the operation region to the second module registered to handle the instructions.

9. The computer-readable medium of claim 7, wherein the definition block comprises executable instructions for creating the PCI object within a namespace of configuration management system.

10. The computer-readable medium of claim 9, wherein the configuration management system comprises an Advanced Configuration and Power Interface system.

11. The computer-readable medium of claim 9, wherein the operation region is defined as a PCI BAR Target operation region associated with the PCI device.

12. The computer-readable medium of claim 9, wherein the definition block further includes executable instructions for creating a control method that, when executed, temporarily suspends use of the operation region.

13. The computer-readable medium of claim 12, wherein the control method is programmed to notify the configuration management system of a change in the availability of the operation region.

14. The computer-readable medium of claim 13, wherein the control method comprises a \_REG control method of the configuration management system.

15. The computer-readable medium of claim 7, wherein the second module receives a base address identifying an address space within which the effective address location resides.

16. The computer-readable medium of claim 15, wherein the base address is stored in a base address register on the PCI device.

17. The computer-readable medium of claim 16, wherein the base address is stored in the base address register by a component of the computing system responsible for allocating resources for the PCI device.

18. The computer-readable medium of claim 16, wherein the base address is assigned by a resource manager, and wherein the base address is stored by a bus driver associated with a PCI bus to which is attached the PCI device.

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